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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,533	11/10/2003	Abaneshwar Prasad	100158	5405
29050	7590	08/29/2005	EXAMINER	
STEVEN WESEMAN ASSOCIATE GENERAL COUNSEL, I.P. CABOT MICROELECTRONICS CORPORATION 870 NORTH COMMONS DRIVE AURORA, IL 60504				MARCHESCI, MICHAEL A
		ART UNIT		PAPER NUMBER
		1755		
DATE MAILED: 08/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/705,533	PRASAD, ABANESHWAR
	Examiner	Art Unit
	Michael A. Marcheschi	1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 15-25 is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/10/03.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: ____.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-14, drawn to a polishing pad, classified in class 51, subclass 298.
- II. Claims 15-25, drawn to a process, classified in class 216, subclass 88.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the biodegradable polymer product can be used in a materially different process of using that product, such as packing and waste disposal. In addition, the process for using the product as claimed can be practiced with another materially different product, such as, a polishing pad that does not comprise a biodegradable polymer

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Caryn Borg-Breen on 7/13/05 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-14. Affirmation

of this election must be made by applicant in replying to this Office action. Claims 15-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See “Guidance on Treatment of Product and Process Claims in light of In re Ochiai, In re Brouwer and 35 U.S.C. § 103(b),” 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bonsignore.

The reference teaches in the abstract, column 3, line 49-column 4, line 35 and example 1, biodegradable, transparent, self supporting, copolymer films made from biodegradable polymers that has repeat units of lactic acid (PLA), such as L-PLA or D-PLA and/or glycolic acid

The preamble limitation "polishing pad " is of no consequence when a composition is the same. Ultimate intended utility does not make a composition patentable. See In re Pearson, 181 U.S.P.Q. 641

The examiner acknowledges that the reference is not literally directed to an polishing pad, however, applicants are claiming an "article or material" which the intended use does not carry any weight to the composition (see **In re Thuau 57 USPQ 324 (CCPA 1942)**). Any material possesses a property such that it may be used for a purpose. In addition, irrespective of what the material is called, the composition of the article is the same.

In view of this, the claimed invention is anticipated by the reference because the reference teaches a composition which comprises all of the claimed components. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention absent evidence to the contrary.

Claims 1, 4, 9, 13 and 14 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Makiyama et al.

Makiyama et al. teach in the abstract, sections [0028], [0029], [0037], [0041]-[0044] and the claims, an abrasive sheet comprising a non-woven fabric made up of lactic acid copolymers or polyglycolic acid. The abrasive sheet also comprises an elastomer. The sheet is porous. Sections [0023] and [0058] state that the abrasive sheet can be used with a slurry containing an abrasive (free abrasive slurry) in polishing processes.

The preamble limitation "polishing pad" is of no consequence when a composition is the same. Ultimate intended utility does not make a composition patentable. See In re Pearson, 181 U.S.P.Q. 641. In addition, an abrasive sheet can broadly be interpreted to be a polishing pad.

In view of this, the claimed invention is anticipated by the reference because the reference teaches a composition which comprises all of the claimed components. Although the biodegradable limitation is not literally defined, this is an inherent (102) or expected (103) property because the polymer used to make up the material is the same (i.e. lactic acid polymer) and since the polymer determines the biodegradability, this characteristic is apparent absent

evidence to the contrary. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention absent evidence to the contrary.

Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as obvious over Makiyama et al., as applied to claim 1 above and further in view of Tomihata et al

Tomihata et al. teach in column 4, lines 34-37 that lactic acid copolymer include the claimed materials.

Makiyama et al. teach that the polymer can be lactic acid copolymers and the recitation of this broadly encompasses the claimed material because **“a generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971).** This is apparent because the secondary reference teach that the claimed materials are all known species of lactic acid polymers, thus making the claimed species obvious.

Claims 6-8 and 11-12 are rejected under 35 U.S.C. 103(a) as obvious over Makiyama et al., as applied to claim 1 above and further in view of Mueller et al.

Mueller et al. teach in section [0070] that an alternative way to using a free abrasive slurry with a polishing pad (sheet) is to incorporate the abrasive directly into (or onto) the pad (i.e. sheet).

Makiyama et al. teach that the abrasive sheet can be used with a slurry containing an abrasive (free abrasive slurry) in polishing processes. The use of any alternative to a free

abrasive slurry is clearly within the scope of one skilled in the art of pads for polishing. Since Mueller et al. teach that an alternative way to using a free abrasive slurry with a polishing pad (sheet) is to incorporate the abrasive directly into (or onto) the pad (i.e. sheet), the concept of incorporating abrasive particles in, or on the surface, of the pad according to the primary reference is obvious to the skilled artisan because the interchangeability of known alternatives is clearly well within the scope of the skilled artisan absent evidence to the contrary. In addition, the use of any conventional way to provide abrasive grains to a pad for polishing is obvious to the skilled artisan. Since abrasive grains are known to be provided to pad by (1) using a free slurry or (2) incorporating them directly into the pad, these two ways to provide the abrasive particles are functionally equivalent and the substitution of one functionally equivalent method for another that is used for the same purpose is clearly within the scope of one skilled in the art. With this being obvious the limitations of claims 6-8 and 11 are met. With respect to claim 12, once the abrasive is present, a polishing layer (over the non woven web) is apparent.

Claim 10 is rejected under 35 U.S.C. 103(a) as obvious over Makiyama et al.

The reference teaches in section [0028] that the abrasive sheet (non woven web) can be treated with specified agents. This broadly reads on claim 10 because coating is a treatment.

Claim 3 is rejected under 35 U.S.C. 103(a) as obvious over Makiyama et al., as applied to claim 1 above and further in view of Lombardo et al. and Walter et al.

Lombardo et al. teach in column 2, lines 59-60 that the concept of cross-linking a matrix for a polishing pad is well known.

Walter et al. teach in column 1, lines 49-50 that cross-linking polymers reduces the water solubility thereof.

The cross-linking aspect is obvious in the primary reference matrix (nonwoven) because the matrix of polishing pads are generally known to be made from cross-linking the matrix, as shown by Lombardo et al. and that cross-linking is known to reduce the water solubility of polymers, as shown by Walter et al.. In view of this cross-linking of the polymer (lactic acid copolymer, etc.) according to the primary reference is obvious to the skilled artisan in order to minimize the water solubility of the non woven web. This concept is important because an abrasive pad is generally used with an aqueous slurry for polishing and if the pad is water soluble, it will dissolve, resulting in the premature disintegration of the pad during use and thus minimizing the life of the pad. One skilled in the art would know that water solubility of the pad, as a whole, is not desired and therefore the use of any treatment to minimize the solubility is clearly within the scope of the skilled artisan.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 10/705,121.

The copending application teaches all of the claimed limitation.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the reduction to practice of the copending application would render obvious the instant claims because the copending claims define a polishing pad that contains all of the claimed components and structural limitations.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968). In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.

A generic disclosure renders a claimed species *prima facie* obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v.*

Biocraft Lab. Inc. 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971).

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548.

Evidence of unexpected results must be commensurate in scope with the subject matter claimed.

In re Linder 173 USPQ 356. To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside (i.e. as well as the upper and lower limits) the claimed range to show the criticality of the claimed range. *In re Hill* 284 F.2d 955, 128 USPO 197 (CCPA 1960).

The references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

Many of the U.S. patents, at least, cited on the 1449, relate to biodegradable films (using at least one of the claimed biodegradable polymers). Since (1) applicant does not clearly define what is meant by a polishing pad in the specification and (2) *the preamble limitation "polishing pad" is of no consequence when a composition is the same. Ultimate intended utility does not make a composition patentable. See In re Pearson, 181 U.S.P.Q. 641 and In re Thuau 57 USPQ 324 (CCPA 1942)*, these references could be applied to reject the claims because the claims do not recite any abrasive present. However, since they are cumulative to or less than the art relied upon in the above rejections, these reference are not applied in any rejection as of yet. Finally, an abrasive limitation added to claim 1 would clearly exclude the possibility of these references being used since the references are silent as to this aspect.

Any foreign language documents submitted by applicant has been considered to the extent of the short explanation of significance, English abstract or English equivalent, if appropriate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/05
MM

Michael A Marcheschi
Primary Examiner
Art Unit 1755